

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Additional Spectrum for Unlicensed)	ET Docket No. 02-380
Devices Below 900 MHz and in the)	
3 GHz Band)	

**COMMENTS OF THE CITY AND COUNTY OF
SAN FRANCISCO**

Introduction

The City and County of San Francisco submits these comments in response to the Notice of Inquiry about allowing additional unlicensed use of the television broadcast spectrum. San Francisco opposes allowing increased unlicensed use of TV broadcast bands, and in particular, opposes allowing unlicensed use of the 470-512 MHz band. Allowing unlicensed use of this spectrum creates a serious threat of interference with critical municipal services, and that threat far outweighs the potential benefits of allowing such use. In addition, the Commission does not have clear substantive standards or efficient procedures for resolving interference between licensed users in the 470-512 MHz band and until it does, the Commission should not expand the use of those frequencies to unlicensed users.

Discussion

In its Notice of Inquiry, the Commission states that, because of minimum separation requirements, there are a number of vacant channels throughout the country and further states that the conversion from analog to digital television will free up additional television channels. Those statements do not reflect the fact that television stations are not the only licensed entities that use the TV band spectrum. Approximately

one dozen major metropolitan areas use a portion of the TV band spectrum to provide crucial municipal services. For example, San Francisco's city-wide municipal transit system ("Muni") relies on that spectrum for operational and safety communications. Muni relies on the frequencies to monitor its fleet and to transmit emergency communications when necessary. Muni needs uninterrupted use of the frequencies to ensure safe and reliable service. Moreover, although it is operating within the scope of its two licenses – one public safety license and one business license – Muni is experiencing serious and damaging interference from another licensed provider using the same spectrum in a neighboring jurisdiction. Allowing additional, unlicensed use of the TV band spectrum will increase the problematic interference that municipalities and citizens already suffer from. If the Commission allows unlicensed users to use this spectrum, it will threaten the public safety operations of municipal entities across the country.

The Commission states that there *may* be technologies to protect against interference, but offers no assurance that these technologies are actually available and sufficiently reliable, nor that the unlicensed users would be required to make use of such technologies. *See* Notice of Inquiry at para. 13. Allowing an entity to use the spectrum without first obtaining a license would not give the Commission sufficient ability to control in advance the way in which the spectrum is used and ensure that it does not interfere with licensed service providers. It would be difficult if not impossible to identify potential interference problems in advance. Instead, the problems would be identified only after they have already begun. This is problematic both for the licensed user, whose operations would have been disrupted, and the unlicensed user, who may

have invested in equipment or otherwise spent money to provide a service that is now causing interference and may need to be discontinued.

In addition, the Commission should not allow *unlicensed* use of the spectrum until it has at least developed adequate and clear standards for resolving disputes in a timely manner with respect to *licensed* users. Currently, the Commission does not have adequate procedures for resolving interference problems between licensed users of the TV band spectrum. For example, Rule 90.403(e) provides that licensees "shall take reasonable precautions to avoid causing harmful interference." But the Commission's rules offer no guidance as to how to resolve mutual interference when two licensees both contend that they are operating within the scope of their respective licenses and yet are interfering with each other's communications. Similarly, Rule 90.176(h) requires frequency coordinators to resolve a conflict between users, "up to and including notifying the Commission that an application may have to be returned." But the Commission's rules do not provide substantive standards or a concrete process for resolving such conflicts.

San Francisco has been trying to resolve an interference problem with another licensed user since August 2001. The parties sought assistance from both the public safety license coordinator and the business license coordinator, without success. On May 30, 2002, Donald Vasek of Industrial Telecommunications Association (ITA), the business license coordinator, presented the matter to the Commission, stating that it believed Commission review "is appropriate at this juncture." On October 31, 2002, the City provided additional background information to the Commission and urged it to evaluate both licensees' operations as soon as possible. On March 28, 2003, the

Commission responded by directing the licensees to Rule 90.403(e) (referenced above), and Rule 90.173(b), which requires licensees to try to resolve interference problems through "mutually satisfactory arrangements." The Commission urged both parties to employ monitoring techniques, and directed them to "meet to discuss arrangements to resolve the interference." The Commission gave no direction as to how the interference would be addressed if the parties could not reach agreement themselves. In fact, the Commission has no established standards for resolving disputes that can not be mutually resolved by the licensees. The Commission should not entertain allowing unlicensed use, which will increase interference problems, when it does not have an adequate process for resolving the interference problems that currently exist between licensed users.

Moreover, as Commissioner Martin notes in his Separate Statement to the Notice of Inquiry, these types of interference claims can go unresolved for months or years while the licensees' operations remain disrupted or stalled completely. *See* Statement of Commissioner Kevin J. Martin, Approving in Part and Dissenting in Part (noting that an interference claim between two licensed TV stations has been pending at the Commission since June 11, 2002).

In response to specific questions set forth in the Notice of Inquiry at paragraphs 14-16, San Francisco urges the Commission not to permit additional unlicensed use in any portion of the TV bands. Even if portions of the spectrum are available, there is no reliable way of ensuring that unlicensed users will confine their use to that available spectrum. In any event, the Commission should not permit unlicensed use of the 470-512 MHz bands. It is critical to the public safety and welfare that that spectrum be available for use by municipal entities without threat of interference.

Imposing geographic restrictions on unlicensed users will not adequately protect against interference, and such restrictions could not be enforced with sufficient speed and consistency to prevent interference with licensed communications. Similarly, establishing separation distances will not guaranty against interference. Local topography significantly affects transmission distances. Moreover, it would be impossible to monitor in advance whether unlicensed providers were complying with these kinds of restrictions. In most cases, the noncompliance would only be identified by evidence of interference, after the harm to licensed users has already occurred.

Conclusion

The Commission should not expand unlicensed use of the TV band, and in particular, should not permit unlicensed use in the 470-512 MHz band. There is no reliable way to adequately protect licensed users from interference if the Commission authorizes unlicensed use of that spectrum, and such interference presents a serious threat to the integrity of municipal services and the citizens who depend on those services.

Respectfully submitted,

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